

Outline of Model Test for Suppressing Acrylamide Formation;

To dissolve glucose, asparagine and additive to be tested in 0.5M phosphate buffer solution to have final concentration of 66.7 μmol and pH 8;



To weigh 8g of Celite, and 10 mL of the solution noted above containing glucose, asparagine and the additive component is added thereto, and 6g of palm oil is further added to mix;



To put the mixture in a cup formed of aluminum foil;



To heat at 170°C for 45 minutes in oven;



To pulverize sample, weight 5g of pulverized sample, and extract with 50 mL of water;



To filter with filtering paper sheet, followed by adding ^3H -labeled acrylamide to filtrate as inner standard substance;



To adjust at pH value of 1 with 6N sulfuric acid;



To add water up to 80 mL;



To add 32g of KBr and 4 mL of 0.2M KBrO_3 for carrying out bromination reaction for one hour;



To add 1M $\text{Na}_2\text{S}_2\text{O}_3$ so as to stop reaction;



Extraction with ethyl acetate;



Dehydration with anhydrous sodium sulfate and concentration;



Analysis with GC-MS

FIGURE